

## Cost-Sharing for Prescriptions of Sildenafil and Finasteride: A Case Study in Veteran Patients

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**Objective:** To evaluate patients' willingness to share the costs of 2 medications (often described as "lifestyle medications"): sildenafil for erectile dysfunction and finasteride for hair loss, which are not routinely covered by the Department of Veterans Affairs (VA) healthcare system.

**Study Design:** Self-administered, anonymous survey.

**Patients and Methods:** Adult men (n = 339) were recruited from waiting rooms for primary care or erectile dysfunction clinic appointments at 2 Los Angeles VA facilities.

**Results:** Participants with self-reported need were analyzed separately for finasteride (primary care patients only) and sildenafil (both primary care and erectile dysfunction clinic patients). The mean age of the participants was 56 and 60 years for the finasteride and sildenafil groups, respectively. Mean annual household income for both groups was under \$10,000. Respondents reported a mean willingness to cost-share \$4.20 for a 30-day prescription of daily finasteride (VA wholesale cost = \$27) and \$5.40 for 4 sildenafil pills (VA wholesale cost = \$20). In the multivariate analysis, higher income ( $P = .002$ ) and increasing self-reported need for medication ( $P = .04$ ) were associated with increased willingness to cost-share for finasteride after controlling for age, race/ethnicity, insured status, comorbid conditions, and type of clinic. In addition, younger age ( $P = .01$ ) was associated with greater willingness to cost-share for sildenafil.

**Conclusions:** In this low-income veteran population, patients with a self-reported need for sildenafil and finasteride would be willing to make a higher copayment than the current VA maximum copayment of \$2.00 per 30-day prescription, if these medicines were made available.

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There has been considerable debate about health plan and health insurer coverage decisions concerning so-called "lifestyle enhancement" medications such as finasteride (Propecia, Merck & Co, Inc, West Point, PA) for treatment of alopecia and sildenafil (Viagra, Pfizer Inc, New York, NY) for treatment of erectile dysfunction.<sup>1-7</sup> Healthcare providers have grappled with balancing patient and provider demand for these drugs with the increased cost that providing coverage would entail. One health maintenance organization has claimed that the cost of providing sildenafil would exceed \$100 million per year.<sup>8</sup>

Insurers and healthcare providers have responded in various ways. Some have determined that these medications are not medically necessary and therefore do not include them in prescription drug benefits.<sup>4</sup> Others have instituted coverage for selected medications, but have limited quantity or instituted tiered co-payment schemes.<sup>4</sup> Finally, some insurers are increasing the standard benefit cost or allowing employers to purchase coverage of these medications through a policy rider.<sup>8</sup>

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Underlying these responses by insurers is the implicit assumption that patients will want or expect unrestricted access to so-called lifestyle medications at little or no out-of-pocket cost. Insurers likely fear that they will bear the brunt of these costs and therefore are looking for ways to share costs with employers or subscribers. Most of the time this translates to limiting coverage (eg, limiting the number of pills per month) or raising copayments for selected medications (eg, using a tiered copayment structure). Copayment structures therefore reflect payers' or insurers' implicit assumptions about what copayments will be acceptable to an insured population for medications covered under a benefits package. To our knowledge, however, there have been no formal studies assessing patient preferences regarding cost-sharing amounts. This is particularly relevant in the context of recent proposals to extend Medicare coverage to include prescription medications but with significant copayments.<sup>9</sup>

To address this issue, we assessed cost-sharing for 2 lifestyle enhancement medications from the patient perspective. We chose sildenafil and finasteride: sildenafil as an example of a medication that restores physiologic function and finasteride as an example of a medication whose effect is mainly cosmetic.

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... METHODS ...

The study took place from December 1998 through March 1999 at 2 Department of Veterans Affairs (VA) medical facilities in the Los Angeles area: the Sepulveda Ambulatory Care Center and the West Los Angeles Healthcare Center, both part of the VA Greater Los Angeles Healthcare System. These 2 facilities serve 80% to 90% of the Healthcare System's outpatients. The remaining unrepresented patients are served by peripheral outpatient clinics. Study participants were male patients attending either the primary care clinics or an erectile dysfunction clinic at the 2 sites. Patients were excluded if they did not speak English, were too ill, or had cognitive limitations.

An 18-item survey was developed and pilot-tested (**Appendix**). Most open-ended questions were altered to include multiple-choice answers because respondents had difficulty answering the open-ended format. The literacy level of the final instrument was 8th grade according to the Flesch-Kincaid measure, which is consistent with the desired level for all patient education materials at the healthcare system.

The questions ascertained the following information: (1) the level of interest in and perceived need for finasteride and sildenafil and (2) what amount patients would be willing to cost-share. Patient knowledge of the medications was not assessed before administering the surveys. The questionnaire described finasteride as "a pill for men with baldness" and sildenafil as "a pill for men who have difficulty having erections." Reported need was assessed by a question asking, "How much do you need Propecia (Viagra)?" with a choice of 5 responses (not at all, a little, a fair amount, a lot, a great deal).

To assess participants' cost-sharing preferences, we asked how much patients would be willing to pay to obtain a 30-day supply of each medicine (30 finasteride pills or 4 sildenafil pills). We chose 30 pills for finasteride because this medication needs to be taken daily. We chose 4 pills for sildenafil to be consistent with the current VA policy of dispensing 4 alprostadil suppositories per month for treatment of erectile dysfunction. Participants had a choice of 9 answers, ranging from "I would not pay anything for Propecia" up to "\$41-50" per month; the latter category approximated the going marketplace cost of finasteride and sildenafil. We included an option to pay nothing for medications because some veteran patients who are service-connected for a particular health problem or who have very low income receive their medication at no charge. Otherwise, the standard copayment is \$2 per 30-day supply per medication.

Utilization of VA services and non-VA healthcare services was queried, including whether the respondent had other health insurance. Patients were asked about comorbid conditions considered to potentially affect sexual function, including hypertension, heart attack or angina, diabetes, cancer, kidney disease, and prostate disease. Information on annual household income, race/ethnicity, and age was collected.

The survey was mostly self-administered, though some subjects required in-person assistance with reading. Participants were given \$5 remuneration for their time. The survey did not ask for name or other self-identifiers, and all patients gave verbal consent to participate. The study was approved by the Institutional Review Board at the VA Greater Los Angeles Healthcare System.

Cost-sharing analyses were conducted in 2 separate groups for the medications: patients recruited from the primary care clinic reporting the need for finasteride and patients from both the primary care and erectile dysfunction clinics reporting the need for sildenafil. The analysis for finasteride was restrict-

ed to the primary care group to avoid possible confounders from the erectile dysfunction clinic group. The analysis for sildenafil was grouped because the mean cost-sharing values for the clinic subgroups were not statistically different by the *t* test; in addition, multivariate linear regression showed no differences in cost-sharing by clinic type. Self-reported need was defined as answering the question “How much do you need Propecia (Viagra)?” with any response other than “not at all.”

Population characteristics were examined by using frequency distributions for demographic and other key variables. Self-described Asian/Pacific Islanders and Native American Indian or Alaskan natives were collapsed with those who selected the “other” race/ethnicity category due to small numbers. Cost-sharing values were reported as raw means calculated from the dollar amount using the lowest value in the ordinal category range (ie, \$21 for the \$21-30 category). Tests for differences between groups in mean cost-sharing values were conducted by using general linear models for each variable with the natural log of the minimum dollar amount in the range plus 1. Tests were conducted on transformed data because the skew in the raw cost-sharing data violated the assumptions of the linear model. General regression diagnostics and residual plots showed no violations of assumptions for the transformed data. To estimate the unique contributions of each variable to the cost-sharing results, we fit a multivariate regression model to the transformed data. The multivariate linear regression models included the following variables, which were all entered into the model simultaneously: degree of self-reported need, race/ethnicity, income level over \$25,000, presence of non-VA insurance, number of comorbid conditions, and type of clinic. All analyses were performed using the SAS System for Windows, release 6.12 (SAS Inc, Cary, NC).

... RESULTS ...

Nearly every person waiting for a clinic appointment on the study days was approached. Four hundred and two patients who met eligibility criteria were asked if they would participate. Of these, 84% agreed to participate: 281 from 2 primary care clinics and 58 from a urology service erectile dysfunction clinic. Response rates in each setting exceeded 80%; 52 (13%) refused to participate and 11 (3%) did not return their surveys. Respondents needed from 5 to 20 minutes to complete the survey. Fewer

than 10% of the patients required assistance in reading the survey, though no further assistance was given in interpreting the questions.

**Table 1** shows the characteristics of those respondents who reported a need for finasteride or sildenafil. Among the 281 primary care patients, 80 indicated a need for finasteride. A total of 189 respondents perceived at least some need for sildenafil (137 primary care patients and 52 erectile dysfunction clinic patients). The finasteride group had a mean age of 56 years (standard deviation [SD] = 15 years), and the sildenafil group had a mean age of 60 years (SD = 12 years). Both groups had racially and ethnically diverse participants. In each of the groups, about half of the participants had an annual household income of \$10,000 or less and reported having some form of health insurance beyond VA care. Comorbid conditions were common, with more than half of the subjects in both groups

**Table 1.** Characteristics of Study Population With Self-Reported Need for Sildenafil and Finasteride\*

Characteristic	Finasteride (n = 80)	Sildenafil (n = 189)
<b>Mean age, y (SD)</b>	56 (15)	60 (12)
<b>Race/ethnicity, %</b>		
Black	30	36
White	49	47
Hispanic	9	10
Other	11	7
<b>Annual household income, %</b>		
<\$10,000	55	52
\$10,000-25,000	29	33
>\$25,000	14	13
<b>Other insurance, %</b>		
Private	13	8
Medicare	21	25
Medicaid	4	4
Multiple <sup>†</sup>	6	7
None	56	55
<b>Comorbid conditions, %<sup>‡</sup></b>		
None	29	21

\*Percentages are rounded and may not add up to 100%.

<sup>†</sup>Multiple insurance refers to participants indicating more than 1 type of non-Department of Veterans Affairs insurance coverage.

<sup>‡</sup>Self-reported comorbid conditions included diabetes, heart attack or angina, hypertension, cancer, kidney disease, and prostate disease.

**Table 2.** Cost-Sharing (in Dollars) for 30-Day Prescriptions of Finasteride and Sildenafil in Participants With Self-Reported Need\*

Characteristic	Willingness to Cost-Share (\$)	
	Finasteride (n=80)	Sildenafil (n=189)
<b>Total, mean (SD)</b>	4.20 (7.70)	5.40 (7.90)
<b>Degree of need, mean (SD)</b>		
A little	0.80 (1.20)	3.80 (5.20)
A fair amount	3.80 (5.30)	4.50 (5.20)
A lot	3.00 (3.40)	5.90 (7.60)
A great deal	8.00 (12.30)	6.80 (10.50)
	<i>P</i> = .006	NS
<b>Age, mean (SD)</b>		
<45 y	7.40 (10.80)	10.20 (12.60)
45–64 y	3.70 (7.60)	5.50 (7.60)
≥65 y	2.40 (3.50)	4.20 (6.30)
	<i>P</i> = .08	<i>P</i> = .03
<b>Race/ethnicity, mean (SD)</b>		
Black	3.00 (5.10)	5.50 (8.50)
White	4.00 (5.50)	5.40 (6.60)
Hispanic	1.40 (2.30)	3.10 (2.90)
Other	10.30 (17.40)	9.00 (14.30)
	NS	NS
<b>Annual household income, mean (SD)</b>		
<\$10,000	2.40 (3.10)	4.70 (6.30)
\$10,000-25,000	3.70 (8.60)	6.40 (9.70)
>\$25,000	12.80 (12.70)	6.80 (8.90)
	<i>P</i> = .002	NS
<b>Other insurance, mean (SD)</b>		
Private	8.40 (8.30)	6.80 (6.50)
Medicare	2.20 (2.80)	4.60 (6.90)
Medicaid	1.30 (1.50)	2.90 (3.80)
Multiple <sup>†</sup>	2.80 (4.80)	3.10 (4.80)
None	4.30 (8.90)	6.20 (9.00)
	<i>P</i> = .17	<i>P</i> = .12
<b>Comorbid conditions,<sup>‡</sup> mean (SD)</b>		
None	5.50 (9.20)	8.70 (10.80)
1–2	4.30 (7.80)	4.60 (7.20)
3–6	1.80 (3.10)	4.60 (5.80)
	<i>P</i> = .10	<i>P</i> = .006

\*Finasteride 30-day prescription = 1 pill per day; sildenafil 30-day prescription = 4 pills. Not significant (NS) indicates *P* > .20. All *P* ≤ .20 results are given as exact values.

<sup>†</sup>Multiple insurance refers to participants indicating more than 1 type of non-Department of Veterans Affairs insurance coverage.

<sup>‡</sup>Self-reported comorbid conditions include diabetes, heart attack or angina, hypertension, cancer, kidney disease, and prostate disease.

acknowledging 1 or 2 conditions. High blood pressure was present in 61% and 59% of the patients in the finasteride group and the sildenafil group, respectively. Diabetes, heart disease, and prostate problems also were reported by one fifth to one third of both groups.

Participants had a mean willingness to cost-share \$4.20 for a 30-day prescription of finasteride (Table 2). This represented 16% of the VA wholesale cost of \$27. Respondents had a mean willingness to cost-share \$5.40 for sildenafil (Table 2). This represented 27% of the VA wholesale cost of \$20 for 4 sildenafil pills. Cost-sharing for sildenafil by clinic subgroups yielded similar means: \$5.40 (SD = \$7.60) for the primary care group and \$5.50 (SD = \$8.70) for the erectile dysfunction group (not statistically significant). Figures 1 and 2 illustrate the range of willingness to share costs for a 30-day prescription of daily finasteride or 4 sildenafil pills. Self-reported need was divided into 2 groups: (1) “a little” or “a fair amount” of need and (2) “a lot” or “a great deal” of need.

Some general trends were seen in mean willingness to cost-share (Table 2). For both finasteride and sildenafil, mean willingness to cost-share increased with degree of self-reported need and income. Conversely, as age and the number of comorbid conditions increased, mean willingness to cost-share decreased. However, not all of these relationships reached statistical significance. For finasteride, degree of need (*P* = .006) and income (*P* = .002) were significantly associated with cost-sharing. For sildenafil, younger age (*P* = .03) and fewer

comorbidities ( $P = .006$ ) were associated with willingness to cost-share at a statistically significant level. Neither race/ethnicity nor other insurance status had any discernible relationship to cost-sharing.

In the multivariate analysis, increasing degree of need ( $P = .04$ ) and income over \$25,000 ( $P = .002$ ) were associated with increased willingness to cost-share for finasteride even after controlling for age, race/ethnicity, presence of other insurance, comorbid conditions, and type of clinic (Table 3). For sildenafil, younger age was associated with increased willingness to share costs ( $P = .01$ ).

... DISCUSSION ...

Most studies that have looked at cost-sharing for medications have attempted to retrospectively gauge the impact of policy decisions on access to medications and/or utilization of health services.<sup>10-13</sup> To our knowledge, there are no studies evaluating patients' preferences about cost-sharing for lifestyle medications such as finasteride or sildenafil. Our results suggest that in our veteran population, patients with self-reported need would be willing to approximately double the current maximum copayment of \$2 to acquire these medications. While this is not a large increase, it may represent a fairly substantial sum given the low socioeconomic status of many of our patient population.

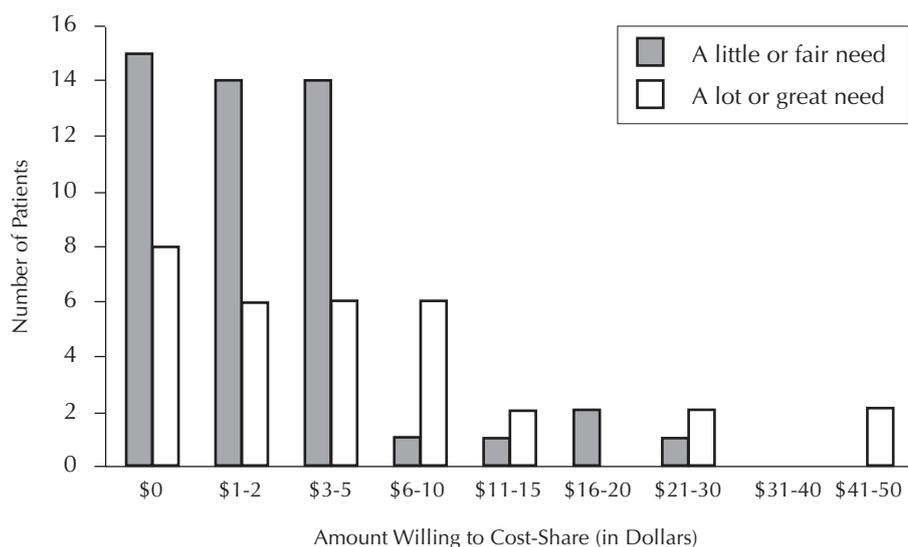
It is important to point out that our study was not intended or designed to be a formal "willingness-to-pay" study, often measured by contingent valuation methodology. Contingent valuation attempts to inform policymakers about how to optimally allocate resources<sup>14</sup> by assessing patients' preferences in terms of value (utility) for a therapy or healthcare program.<sup>15,16</sup> Patients who require, or someday

might require, a specific therapy or program often are given a scenario to assess.<sup>15,17</sup> They then are asked to quantify (in monetary terms) their preferences for that therapy and/or resultant health status change. There are varying methods of doing so, though controversy remains about which method is preferable.<sup>18,19</sup>

While our study had some similarities to contingent valuation assessment (eg, it was survey-based and asked patients about monetary value), we did not attempt to evaluate whether the VA should or should not provide lifestyle medications. Our method did not include health insurance trade-offs, primarily because VA healthcare is an entitlement program that does not involve insurance costs to patients, nor did we include health status questions that would be necessary for a more formal and expansive cost-benefit analysis. Rather, we explored whether patients would be willing to make a greater copayment if the VA were to offer lifestyle medications. In other words, we focused on assessing patient preferences about cost-sharing, not coverage decisions.

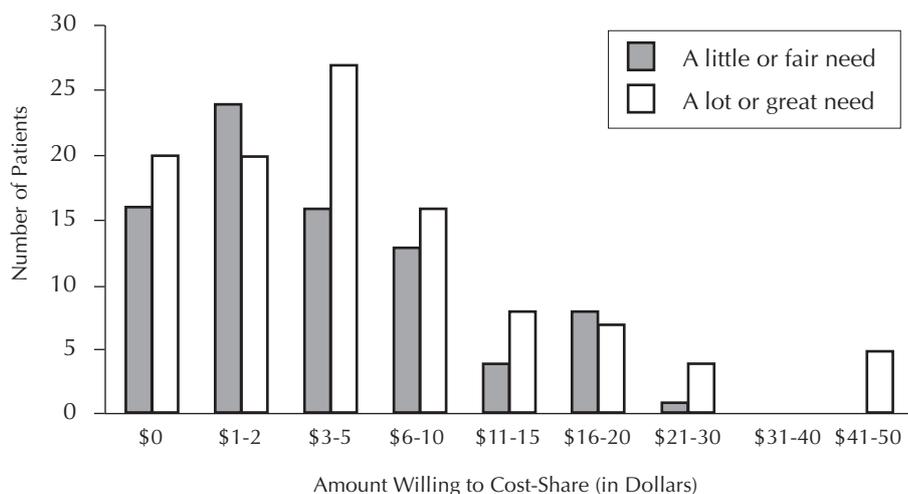
Our results suggest that many patients, at least at our VA, would be willing to increase their copayment

**Figure 1.** Maximum Amount Respondents Are Willing to Cost-Share (Copayment) for a 30-Day Prescription of Daily Finasteride in the Primary Care Group With Self-Reported Need for Finasteride



The wholesale cost a for 30-day supply of finasteride is \$27 (Jocelyn Hunter, Drug Information Officer, VA Greater Los Angeles Healthcare System, June 17, 1999). Shaded bars indicate participants who report "a little" or "a fair amount" of need; white bars indicate participants who report "a lot" to "a great deal" of need.

**Figure 2.** Maximum Amount Respondents Are Willing to Cost-Share (Copayment) for 4 Sildenafil Pills in Both Primary Care and Erectile Dysfunction Groups With Self-Reported Need for Sildenafil



The wholesale cost for 4 sildenafil pills is \$20 (Jocelyn Hunter, Drug Information Officer, VA Greater Los Angeles Healthcare System, June 17, 1999). Shaded bars indicate participants who report “a little” or “a fair amount” of need; white bars indicate participants who report “a lot” to “a great deal” of need.

**Table 3.** Results of Multivariate Model of Willingness to Share Costs for Finasteride and Sildenafil\*

Characteristic	Finasteride		Sildenafil	
	Parameter Estimate	P	Parameter Estimate	P
Age	-0.01	.19	-0.02	.01
Degree of need	0.18	.04	0.10	.14
Race/ethnicity				
White	—	—	—	—
Black	-0.05	.81	-0.16	.34
Hispanic	-0.68	.06	-0.37	.16
Other	0.50	.14	-0.01	.97
Income > \$25,000	0.98	.002	0.38	.10
Other insurance	0.03	.90	-0.04	.83
Comorbid conditions	-0.13	.15	-0.06	.32

\*The willingness-to-cost-share variable was transformed by using the natural log of cost plus 1.

for certain medications beyond usual expected copayment rates. Their willingness, however, did not extend to cover the VA’s cost of these medications, even though the VA often negotiates acquisition costs that are substantially less than prevailing wholesale costs. This finding is not surprising, given the overall socioeconomic status of aged veterans. Nonetheless, patients with self-reported need were willing to share nearly 16% of the VA’s cost for finasteride and 27% of the VA’s cost for sildenafil. Current VA maximum copayment rates would recover approximately 7% and 10% of the VA acquisition costs for finasteride and sildenafil, respectively.

Our findings indicate that other factors may be associated with preferences about cost-sharing. Interestingly, these were not consistent across the 2 medications. For example, our model noted that degree of need and higher income were associated with increased acceptable copayment for finasteride. This latter result corresponds to that noted in some willingness-to-pay studies.<sup>14,16</sup> For sildenafil, only age was associated with an increased acceptable copayment. Since our study was not designed to directly assess differences across these 2 medications, we can only speculate that the results reflect differences in the way patients view 2 distinctly different lifestyle medications. Further research is needed, particularly because more lifestyle medications will become available in the future and we expect that patients will want access to these medications. In practical terms, it would be helpful for pharmacy benefits managers and

managed care organizations to know how patients prioritize different lifestyle medications in order to structure their benefits packages appropriately.

There are important limitations to this study. First, we surveyed a low-income, male veteran population attending selected ambulatory care clinics and we used a nonrandomized method to choose participants. Thus, our results may not be generalizable to other populations. Second, we did not have objective verification of erectile dysfunction or hair loss, but rather depended on self-reported assessment of need. Even so, there were no significant differences between the physician-diagnosed erectile dysfunction group and the primary care group in mean willingness to cost-share for sildenafil, suggesting that any differences between evaluated and self-reported need probably would not affect our conclusions. Third, while we estimated an overall mean for willingness to cost-share, we did not attempt to assess the stated change in cost-sharing per person. Although the standard copayment for veterans is either no copayment or \$2 per 30-day prescription, this can change, depending on whether a certain level of income is attained in a given year or whether a certain condition is service-connected. For example, the same veteran may make a \$2 copayment for 1 medication (if the condition the medication is treating is not service-connected) and no copayment for another medication (if the condition the medication is treating is service-connected). The way the VA applies copayments to individual medications may inject a bit more variation in how respondents answered about current copayments. Finally, we looked only at patients currently enrolled in our healthcare system. As such, we do not know the level of demand and hence additional resources that might be required if the availability of sildenafil and finasteride at our healthcare system were to attract new patients.

### ... CONCLUSION ...

Our results suggest that in our low-income veteran population, patients with self-reported need may be willing to share one fourth of VA acquisition costs for sildenafil and somewhat less for finasteride, should the VA decide to offer these medications. While our study is limited in its generalizability, it provides a model to managed care entities and the Health Care Financing Administration (in an expanded Medicare pharmacy benefits future) on how to gather patient input on cost-sharing for

lifestyle medications. Additionally, more formal decision analyses regarding patient utilities are needed to determine whether offering such medications is economically justified.

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### ... REFERENCES ...

1. **Beecham L, Dorozynski A, Sheldon T, et al.** Viagra falls: The debate over rationing continues. *BMJ* 1998;317:836-838.
2. **Greene J.** Al wants more hair, less fat, and a better sex life...and he wants his health plan to pay for it. *Hosp Health Netw* 1999;73:36.
3. **Hagland M.** Perspectives. Viagra or bust: Is pharmacy cost crisis unraveling HMO utilization strategy? *Med Health* 1998;52(suppl):1-4.
4. **La Puma J.** Is sex medically necessary? Who should pay for Viagra? *Manag Care* 1998;7:52-55.
5. **Moreno JD.** Should prescription plans cover Viagra? *J Androl* 1999;20:196-197.
6. Health economics and sexual dysfunction. Based on a presentation by Cyril F. Chang, PhD. *Am J Manag Care* 1999;5(suppl 1):S15-S22.
7. Managed care and sexual dysfunction. Based on a presentation by William Parham, MD. *Am J Manag Care* 1999;5(suppl 1):S23-S30.
8. **Hayon B.** Kaiser Permanente to exclude Viagra [news release]. June 19, 1998. Available at: <http://www.kaiserpermanente.org/newsroom/releases/061998.html>. Accessed May 21, 1999.
9. **Pear R.** Clinton lays out plan to overhaul Medicare system. *New York Times*, June 30, 1999:A1 (col 1).
10. **Stuart B, Zacker C.** Who bears the burden of Medicaid drug co-payment policies? *Health Aff* 1999;18(2):201-212.
11. **Hillman AL, Pauly MV, Escarce JJ, et al.** Financial incentives and drug spending in managed care. *Health Aff* 1999;18(2):189-200.
12. **Johnson RE, Goodman MJ, Hornbrook MC, Eldredge MB.** The effect of increased prescription drug cost-sharing on medical care utilization and expenses of elderly health maintenance organization members. *Med Care* 1997;35:1119-1131.
13. **Freemantle N, Bloor K.** Lessons from international experience in controlling pharmaceutical expenditure, I: Influencing patients. *BMJ* 1996;312:1469-1471.
14. **Zethraeus N, Johannesson M, Henriksson P, Strand RT.** The impact of hormone replacement therapy on quality of life and willingness to pay. *Br J Obstet Gynaecol* 1997;104:1191-1195.
15. **O'Brien BJ, Goeree R, Gafni A, et al.** Assessing the value of a new pharmaceutical. A feasibility study of contingent valuation in managed care. *Med Care* 1998;36:370-384.
16. **Ramsey SD, Sullivan SD, Psaty BM, Patrick DL.** Willingness to pay for antihypertensive care: Evidence from a staff-model HMO. *Soc Sci Med* 1997;44:1911-1917.
17. **Griggs JJ, Mushlin AI.** Economic analysis of expensive technologies. The case of erythropoietin. *Cancer* 1998;83:2427-2429.
18. **Stålhammar N-O.** An empirical note on willingness to pay and starting-point bias. *Med Decis Making* 1996;16:242-247.
19. **Bala MV, Wood LL, Zarkin GA, et al.** Valuing outcomes in

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health care: A comparison of willingness to pay and quality-adjusted life-years. *J Clin Epidemiol* 1998;51:667-676.

**Appendix**

We in the VA are interested in knowing your thoughts about certain medications that the VA does not currently offer to veterans. Your participation is voluntary, but if you agree to help us, then please read the questions below and answer them as best you can. This survey is anonymous and your answers are strictly confidential. Please do not write your name or social security number anywhere on the questionnaire. Thank you for your help.

Currently, **Propecia** (a pill for men with baldness) and **Viagra** (a pill for men who have difficulty having erections) are not available at the VA because of cost and other considerations. For each of the following, please tell us your opinion.

1. How much do you need **Propecia**?  
(circle one number)
 

Not at all	1
A little	2
A fair amount	3
A lot	4
A great deal	5
  
2. At this time, would you be interested in having **Propecia** available to you through the VA?  
(circle one number)
 

Yes	1
No	2
  
3. If the VA offered **Propecia**, how would that affect your perception of VA care?  
(circle one number)
 

Much more positive	1
Slightly more positive	2
Neither more positive nor more negative	3
Slightly more negative	4
Much more negative	5
  
4. **Propecia** medication needs to be taken every day, indefinitely. What is the *most* you would be willing to pay *per month* for **Propecia**?  
(circle one number)
 

I would not pay anything for Propecia	1
\$1-2 per month	2
\$3-5 per month	3
\$6-10 per month	4
\$11-15 per month	5
\$16-20 per month	6
\$21-30 per month	7
\$31-40 per month	8
\$41-50 per month	9

5. How much do you need **Viagra**?  
(circle one number)
 

Not at all	1
A little	2
A fair amount	3
A lot	4
A great deal	5
  
6. At this time, would you be interested in having **Viagra** available to you through the VA?  
(circle one number)
 

Yes	1
No	2
  
7. If the VA offered **Viagra**, how would that affect your perception of VA care?  
(circle one number)
 

Much more positive	1
Slightly more positive	2
Neither more positive nor more negative	3
Slightly more negative	4
Much more negative	5
  
8. One **Viagra** pill needs to be taken an hour before each sexual encounter. What is the *most* you would be willing to pay for a prescription of **Viagra** if a monthly prescription included four (4) **Viagra** pills?  
(circle one number)
 

I would not pay anything for Viagra	1
\$1-2 per month	2
\$3-5 per month	3
\$6-10 per month	4
\$11-15 per month	5
\$16-20 per month	6
\$21-30 per month	7
\$31-40 per month	8
\$41-50 per month	9
  
9. In the past two years, have you used any of the following?  
(circle one number on each line)
 

	Yes	No
Viagra	1	2
Penile injection (Caverject™)	1	2
Penile implant	1	2
Vacuum erection device	1	2
Penile suppository (Muse™)	1	2
Herbal remedies/pills for impotence/erectile dysfunction	1	2
Other (please specify _____)	1	2

(continued on following page)

10. Has a doctor EVER told you that you had any of the following conditions?  
(circle one number on each line)

	Yes	No
High blood pressure	1	2
Heart attack or angina	1	2
Diabetes (high blood sugar)	1	2
Cancer (except skin cancer)	1	2
Kidney disease	1	2
Problems with the prostate	1	2
Prostate cancer	1	2

11. Are you taking any heart medicine containing nitrates (like nitroglycerin pills, paste, or patch)?  
(circle one number)

Yes	1
No	2

12. How many times have you been to *this clinic* in the last 12 months, including today?  
(circle one number)

None	1
Just today	2
Two to three times	3
Four to five times	4
Six to seven times	5
Eight to nine times	6
Ten or more times	7

13. How many times have you been to a non-VA healthcare provider in the last 12 months?  
(circle one number)

None	1
One time	2
Two to three times	3
Four to five times	4
Six to seven times	5
Eight to nine times	6
Ten or more times	7

14. Are you insured by any of the following?  
(circle all that apply)

Private insurance, HMO	1
Private insurance, non-HMO	2
Medicare, HMO	3
Medicare, non-HMO	4
Medicaid	5
None	6

(If none go to Question 16)

15. Does your insurance or HMO offer **Viagra** (whether you have to pay anything or not to get the prescription)?  
(circle one number)

Yes, but I have to pay money to get it	1
Yes, I get it for free	2
No	3
Don't know	4

16. How old were you on your last birthday?  
\_\_\_\_\_ years

17. How do you describe yourself?  
(circle one number)

African-American/Black (not Hispanic)	1
White (not Hispanic)	2
Hispanic or Latino	3
Native American (Indian) or Alaskan Native	4
Asian or Pacific Islander	5
Other (please specify _____)	6

18. What was your household income in the last year (include government benefits)?  
(circle one number)

Less than \$5,000	1
Between \$5,000 and \$10,000	2
Between \$10,000 and \$15,000	3
Between \$15,000 and \$25,000	4
Between \$25,000 and \$50,000	5
Between \$50,000 and \$100,000	6
More than \$100,000	7

Thank you very much for your participation.